## ON A FEW HETEROPTERA FROM MASSACHUSETTS.

By J. R. de la Torre-Bueno, White Plains, N. Y.

In the early part of October, 1923, I spent a few days at Amherst, Mass., and while there, Dr. G. C. Crampton and Dr. C. P. Alexander very kindly conducted me to several likely collecting places. The season was quite far advanced; heavy frosts had killed vegetation. Moreover, the extremely dry summer of this year had made water (and other) collecting rather poor. In spite of this, however, some good things were secured.

Our first trip on the afternoon of October 8 was to Leverett, some ten miles from Amherst. Here steeple-bush yielded a couple of its usual denizen, *Ischnorhynchus geminatus* Say; sweeping in sedges produced one *Stenodema vicinum* Reuter; and on trees two third instar nymphs of *Zelus exsanguis* Stål were caught. Dr. Crampton netted in flight a *Phytocoris neglectus* Knight; and sycamore bark sheltered in good numbers the usual *Corythucha ciliata* Say. The pond, however, was in a sense more fruitful. A few *Notonecta undulata* Say were dredged by Dr. Alexander and myself; and one *N. variabilis* Fieber by the former, who also got a solitary *Mesovelia bisignata* Uhler, a very deep green apterous female. In a ribbon-like waterweed growing in shallow water, in the shadow of a boat, Dr. Alexander and I between us caught about two dozen *Ranatra kirkaldyi* Bueno, which was to be seen sluggishly swimming after the plants were disturbed by the net.

On the following day (October 9) we spent an hour in the afternoon at Cushman's, where in a little drainage ditch I got one small female Corixa, not identifiable by Abbott's keys. There were several of these in the flocculent ooze. Sweeping yielded the common *Lygus pratensis* L. in abundance and three *Lygus vanduzeei* Knight. *Stenodema vicinum* Prov. was common among the grasses. Steeple-bush harbored the usual *Ischnorhynchus,* but not many, as the bushes were heavily frost-killed. The grasses and sedges yielded an abundance of *Nabis rufusculus* Reuter; and on an upland meadow across the road, one *N. ferus* L. was caught. Golden rod, both on the boggy meadow and on the upland, yielded six *Crophius disconotus* Say. This seems to be the food plant of this insect, as also a favorable situation—that is—upland meadow contiguous to a boggy place. In the bog

one *Kolenetrus plenus* Distant was secured. A roadside oak was badly infested with *Corythucha arcuata* Say, which had bleached many of the leaves. There were abundant eggs, together with nymphs and adults, still active. The flower heads of aster, golden rod and other autumn blooms, harbored many *Triphleps insidiosus* Say. In a corner of the field, among shrubbery, Dr. Crampton took one *Banasa dimidiata* Say; and I swept one *Peribalus limbolarius* Stål. *Ligyrocoris diffusus* Uhler, although present, was not abundant.

Later in the afternoon, a sand pit at North Amherst was quite good. *Nysius ericae* Schilling was not only running about on the sun-warmed sand, adults and nymphs, as usual, but it was also heavily clustered on the flowers of an everlasting. *Ortholomus scolopax* Say was in good numbers on golden rod; *Nabis ferus* L. was in the various plants, and one *Corizus lateralis* Say was swept. *Harmostes reflexulus* Say was another common form on the golden rod. *Lespedeza* harbored numbers of *Alydus eurinus* Say, *A. pilosulus* H. S. and *Megalotomus quinquespinosus* Say. Under a clump of small yellow birches, among the dry leaves, one *Corythucha marmorata* Uhler was found; and running fast, a couple of *Ptochiomera clavigera* Uhler. The day was fine, clear and warm, and there were quite a few insects in the air—mainly small beetles and plant lice.

*Phytocoris neglectus* Uhler and *Ptochiomera clavigera* Uhler merit special mention, as they have not been before reported from Massachusetts and are not recorded in Parshley's New England list, nor in the recently published Hemiptera of Connecticut. The others are new Massachusetts localities.

A short while later, Mr. C. A. Frost, of Framingham, Mass., kindly favored me with some bugs he had secured by sifting this past autumn, which he regarded as too ordinary to mention. In addition to *Myodocha serripes* Olivier and *Cymus discors* Horvath already reported from Framingham, the other (and greater part of the specimens) either add to the known distribution in the State; or are otherwise noteworthy. From Sherborn, on November 4, are these records: *Podops cinctipes* Say, two; *Drymus unus* Say, one; *Antillocoris pilosulus* Stål, one; November 18, same locality: *Cymus discors* Horv., one; *Nabis roseipennis* Reuter, two; *N. rufusculus* Reuter, one; and four *Lygus pratensis* L.

From Framingham, dated October 13, there is one *Corythucha pergandei* Heid. and two *Acalpyta thomsonii* Stål, and another from Sherborn, October 7.

Sifting continued good late in the season, owing to the very mild weather experienced well into December. So sifting leaves at the edge of a swamp and on the hummocks above the swamp level and at the base of grasses yielded on November 28 at Sherborn two *Heraeus plebejus* Stål, one *Pamera basalis* Dallas and one *Zelus exsanguis* Stål, nymph; *Cymus discors* Horvath was the most abundant bug, secured from among leaves along the edge of the swamp. The other species taken on this date were *Euchistus tristigmus* Say, *Thyreocoris pulicarius* Germar; one long-winged *Nabis roseipennis* Reuter; and one *Antillocoris pallidus* Stål. On December 1, sifting in open woods at the edge of a swale, in Sherborn, gave another *Acalypta thomsonii;* one apterous and one brachypterous *Nabis rufusculus;* two *Scolopostethus diffidens* Horvath, and four *S. atlanticus* Horvath; one *Antillocoris pallidus* and numerous *Lygus pratensis;* and on December 2, one *Nabis roseipennis.* On December 8, these species were secured: *Cymus angustatus, C. discors, Ligyrocoris diffusus* Say, *Heraeus plebejus, Corythucha marmorata* Uhl. and *Podops cinctipes.*

All these are new localities for Massachusetts. *Acalypta thomsonii,* although not given in Parshley's New England list, was recorded from Massachusetts by McAtee, in Proc. Ent. Soc. Wash., xviii, No. 4, 219 (1916). It would seem to be not uncommon.

The four described species of *Acalypta* from the United States may be separated by the appended key, to amplify that given in Hemiptera of Connecticut, p. 698.

*Key to Species of Acalypta.*

1. Bucculae united anteriorly; lateral pronotal carinae markedly diverging posteriorly (explanate margins of pronotum anteriorly truncate, roundedly angular; discoidal area comparatively short and broad; general aspect *broad;* costal area biseriate in greater part; third segment of antennae not quite twice as long as fourth; length, 2.5–3 mm.). *thomsonii* Stål

Bucculae separated anteriorly; lateral pronotal carinae slightly diverging posteriorly, subparallel .....2

2. Third segment of antennae nearly twice as long as fourth; pronotal margins angularly dilated behind middle (discoidal area short; length, 2.9 mm.) .....*cooleyi* Drake
Montana.

Third segment of antennae nearly or more than three times as long as fourth; pronotal margins rounded (costal area uniseriate) .....3

3. Third segment of antennae more than three times as long as fourth; discoidal area long and narrow, apex rounded; general aspect narrow; color black; length, macropterous, 3 mm., brachypterous, 2.3 mm. .....*lillianis* Bueno
Maine, Massachusetts New York, Maryland, North Carolina.

## A NEW NORTH AMERICAN SPECIES OF AMIOTA LOEW (Diptera).

By J. R. Malloch, Washington, D. C.

The type specimen of the species described below is in the collection of the Natural History Survey of Illinois.

**Amiota setigera** sp. n.

Male.—Black, slightly shining. Frons shining, when seen from in front, upper half black, lower half yellowish; face and cheeks yellowish, lower half of former ivory white; antennae and palpi yellow; labrum fuscous. Dorsum of thorax with dense grayish pruinescence, more shining on sides, the usual ivory white humeral and pleural spots conspicuous. Abdomen concolorous with thorax, not yellowish anywhere. Legs, including coxae, tawny yellow. Wings hyaline, veins pale brown. Bristles and hairs all luteous. Frons twice as long as its anterior width, widened posteriorly. Thoracic chaetotaxy as in *humeralis* Loew. Hind femur with about five long yellow bristles near middle on posteroventral surface which are much longer than the diameter of femur; none of the tibiae with erect hairs. Inner cross-vein slightly before middle of discal cell; fifth vein more pronouncedly deflected beyond outer cross-vein than in the other species, forming with it a slightly angulate line; venation otherwise as in *humeralis.*